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ABSTRACT

An overview is presented of current issues in the assessment of gifted and talented persons, with an emphasis on generalizable and universal talents and the operational methods used in their identification. The Chinese were seeking out talented individuals through formal identification procedures as early as 2200 BC. In the Western world, the use of tests to explore human competencies, outside of educational institutions, is only a little over 100 years old, with beginnings in the work of Sir Francis Galton. The identification and recognition of talent in this country continue to operate through two parallel systems, within the formal educational processes and within the worlds of business, political, and cultural affairs. Talent recognized in one system is not highly predictive of talent recognized in the other. Education decision makers tend to believe that they are reaching for a variety of talents when they select the gifted and talented, but their selections are largely based on grades and scores, a fact that may explain why those they identify as gifted do not show up with consistency among those identified as talented by the larger society. From the ancient Chinese, we can learn to work toward developing talent identification systems that relate to all the areas of talent that are represented at the top of society. It is not that testing is bad as a means of identifying talents, but simply that it is too narrow. (SLD)

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THREE THOUSAND YEARS OF TALENT SEARCHING

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

My instructions were to prepare an overview of current issues in assessment of the gifted and talented, with special regard for generalizable and universal talents and the operational methods used in their identification. The presentation was not to exceed fifteen minutes. I trust you will not be shocked to learn that, given those goals, I am not that gifted and talented in fifteen minutes.

In the search for universals, let me back up more than 3000 years. Everyone knows that the older a tradition or custom, the more prestige it has. My remarks may not tell you all you need to know about the gifted and talented, but if I begin the story 3000 years ago, at least they will have prestige.

According to DuBois (1970), the Chinese were seeking out and identifying talented individuals through formal examination procedures as early as 2200 B.C. It seems that Chinese tradition was at odds with that of the Western World, for they did NOT make their decisions about how to ascribe positions of power and wealth on the basis of family background. In the absence of a hereditary ruling class, the Chinese searched for people of competency and talent to fill powerful governmental positions, where they would have substantial authority over the lives of others.

They began their talent search with local authorities, who were instructed to seek out competent individuals of high moral standards and recommend them to take local examinations. Those who successfully completed the examinations at the local level then moved on to compete with others from the local level in a testing held at the chief city of their district. Survivors of the district level were sent to Peking for the national competition. About three per cent of those who competed at the national level were successful in becoming mandarins and therefore eligible for ruling positions throughout the land.

Examinations were used not only in searching for talent. Tests were the basis also for decisions about the competence of officials, whether they should be allowed to continue in office, be promoted, or be dismissed. One gets the feeling that Chinese officialdom must have lived and died by the test.

What kinds of exams were these? Again according to DuBois, early procedures were aimed at testing proficiency in the so-called "six arts": music, archery, horsemanship, writing, arithmetic, and the rites and

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ceremonies of public and private life. These procedures underwent modification for thousands of years. Written exams were introduced before the birth of Christ in studies such as civil law, military affairs, agriculture, poetry and essay writing, penmanship, and the geography of the Empire. Thus, for centuries, the Chinese had a fairly stable cultural mechanism for identifying, honoring, and allocating responsibility to individuals judged to be gifted and talented.

In making these judgments, the Chinese cast a wide net. They were looking for a highly diversified set of human talents, ranging all the way from classical scholarship, the arts, letters, and mathematics through to athletic skills. Their definition of human worth was multidimensional. What was emphasized, the characteristics that were highly valued, were those competencies that would serve well the public interest.

In the Western World, the use of examinations to evaluate achievement was a practice of the educational institutions. Some of the first testing procedures were developed at the University of Bologna in the early 1200's. Outside of educational institutions, the construction of tests for the exploration of human competencies in the Western World is only a little over a hundred years old.

The beginnings of the measurement of human individual differences may be found in the work of England's Sir Francis Galton. He was much interested in the biological basis of human talents. In the mid- to latter part of the 1800's, Galton devised a set of tests aimed at evaluating how well a given individual responded to the sensory world. His measures were concerned with the keenness of the person's ability to discriminate between different weights, sights, or sounds; with the strength of the grip and the pull; with the swiftness of the blow.

Galton's notion was that the persons who were better at dealing with the physical world would also be better able, more fit to survive in the evolutionary sense. He believed that one inherited a set of gifts, talents, or genius directly from a family genetic pool of such factors. One's fitness to survive was a matter of the family one came from. One of his first works on the subject was entitled "Hereditary Genius." He argued that genius was a family matter and that, since one could not choose one's family, one's endeavors had no influence in the development of any talents.

A little gossip may be of interest at this point. Galton was a member of a distinguished British family with a long history of accomplishment. His first cousin was Darwin, and he himself had been considered to be a genius since the age of four. It is noteworthy to compare these western beginnings of the measurement of human talent with those of the Chinese 3000 years earlier. The Chinese were concerned with finding gifted people

to fill positions in the ruling class. Galton was interested in showing why the hereditary ruling class was gifted.

In the early part of the twentieth century, Binet and Simon in France developed an approach to the measurement of individual differences that was different from the one used by Galton. Galton's work had run into problems: one of his measures of talent was not related to another, and the sum total of his evidence of sensory talents did not predict or correlate with other sorts of judgment or measures of ability such as university grades.

The approach Binet and Simon took to measurement was to construct tasks that were much more complicated than Galton's. They were intended to reflect what one had learned about the world, or how one would solve real world problems—tasks that were reflected as well in the demands of a formal system of education. The intelligence test was born of Binet and Simon's approach, and this kind of test was related to important real world events such as grade level (or year) in school, grades within each level, and the age of the person being tested: The older the child, the more items passed.

In 1905, Binet presented to the world an objective testing instrument that was useful in diagnosing various degrees of mental retardation among the French. Twenty years later, this same approach, translated into English, became a major method in this country for identifying the clever, the gifted, the talented, the intelligent. This was the method of identification used by Terman in his [illegible]olume, *Genetic studies of genius. Mental and physical traits of a [illegible]and gifted children.* And now, fifty-five years later, the Binet intelli[illegible] scale and its children and grandchildren, the academic aptitude tests, the tests of verbal and mathematical translator skills—these are the most commonly agreed upon testing methods for searching out and identifying our national gifted and talented human resources.

Let me turn away now from the history of testing, though I shall return to it, for it holds important lessons, I believe; and move instead to a brief discussion of the current picture in this country as to the identification and recognition of talent. At present, it would appear that we have operating two parallel systems for recognizing gifted and talented accomplishments. One system is housed primarily within the educational establishment, the formal education processes. The other system operating to recognize citizens for their accomplishments resides in the world of affairs—business, political, and cultural affairs.

The system that is education-based surely dominates the early years of our citizens' lives, through late adolescence. Aptitude test scores and school grades typically are given heavy weight in decisions made as to

which young people are to be identified as gifted. Because these test scores and school grades are highly interrelated measures, these two apparently separate assessments really boil down to one single measure. This might be very generally described as an assessment of proficiency in dealing with the verbal and mathematical components of the academic domain.

In the world of affairs, society recognizes and rewards a far wider array of human accomplishment, of demonstrated talent, than the range typically considered in academe. Outstanding gifts in theater, dance, the visual arts, music—all are fair game for recognition by society, whether or not the talented person has accumulated academic laurels. Beyond recognizing a greater diversity of talents, society also grants its recognition in a very different way from the way of schools. If the talent is more likely to be identified on the basis of public rather than private performance, it is also rewarded in more public form—by applause, by attendance at concerts, by purchase of paintings, by money. And this is true not only of the arts, of course, but in politics, science, and letters as well.

Given these differences between the education-based and the society-based systems of recognizing talent, it should not be surprising that talent emerging from one system is not highly predictive of talent emerging from the other. Test scores and grades at an early level of schooling are moderately predictive of test scores and grades at the next educational level, and so on throughout the educational system. When it comes to those who graduate, however—those within a restricted range of higher test scores and grades—these measures are NOT highly predictive of later performance in real life (Hoyt, 1966). Moreover, as noted by Thorndike and Hagen (1959), test scores may be reasonably good predictors of people's career choices, but they are not informative about success within the career chosen.

The disassociation between the two selection systems—school and societal—is also evident in the conception that education decision-makers have about their own selection process. They tend to believe they are reaching for a variety of talents when they make their selections. But, by and large, their selections are school grade and test score based, a fact which may explain why those they identify as gifted do not, within those upper ranges, show up with great consistency among the people identified as talented later by society (Wing and Wallach, 1971; Dawes, 1979).

Let me turn back to history now to ask what we may learn from the Chinese and from Galton. Galton, you will recall, set about to prove that talent was genetic. He used chiefly tests of sensory discrimination. The reason his approach failed was that success at the tasks he devised turned out not to relate to successes of other kinds in the world of affairs. Do we

not have something like the same problem in the circularity of testing mostly for the talents people need in order to make good school grades? Good grades become the equivalent of Galton's family gene pool: If you make good grades, you are necessarily talented. If you do not, there is no possibility of genius.

When the Chinese started testing 3000 years ago, there was no educational system. They had to think about what sorts of traits they needed in their leaders. So they set out to identify talent for horsemanship and archery and music as well as for writing and arithmetic. For the good of their society, talent was needed in all of these areas.

What we can learn from the Chinese, it seems to me, is to work toward developing talent identification programs that relate to *all* of the areas of talent we want represented at the top of our society. We need to cast our testing net much wider than we do now, including not only the academic skills dominating our current process of selecting the gifted, but also evidences of talent in other important areas society recognizes.

And these talent identification programs need not be only of the paper and pencil variety. Performance, behavior—whether for music or horsemanship—can be evaluated as evidence of the presence of talent. You as music educators know this well, for you are accustomed to judgments based on auditions.

So what I am saying is not that testing is bad as a means of identifying people's talents—not at all; but that the kind of selection system we have grown accustomed to is too narrow. We need to reach out specifically for more areas of talent to test for. And we need to use more selection techniques, not just paper and pencil tests. We have, in fact, tended to look for what is easy to test—easy to score objectively and easy to administer to mass populations—rather than for what our society needs as gifted leaders. Even now, technology is handing us new tools—computers, video, and audio techniques—which could enable us to personalize testing, take into account far more kinds of talent, and yet handle large numbers of individuals in the selection process.

As we reach to measure more kinds of talent, identify and promote the development of more kinds of gifts, we shall enjoy a richer society—provided we do as the early Chinese did: Keep in clear focus the need to relate test scores not to a restricted area of endeavor, such as school grades, but rather to the larger talent needs of our entire society.

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